

1 1. An apparatus for web initiated telephony between
2 telephonic devices, the apparatus comprising:

3 a computer, having a data connection to a web server,
4 for initiating a telephonic connection between a
5 plurality of telephonic devices; and

6 a plurality of point of presence (POP) telephony
7 servers, coupled to a telephone network, and to
8 said web server, said plurality of POP telephony
9 servers for connecting to said plurality of
10 telephonic devices upon command by said web
11 server;

12 wherein said command by said web server is initiated
13 by a user controlling said computer.

1 2. The apparatus for web initiated telephony as recited
2 in claim 1 wherein said computer comprises:

3 a personal computer;

4 a personal digital assistant (PDA); or

5 a set-top box.

1 3. The apparatus for web initiated telephony as recited
2 in claim 1 wherein said data connection comprises an
3 internet connection.

1 4. The apparatus for web initiated telephony as recited
2 in claim 1 wherein said web server comprises a server
3 on the internet, for receiving said initiating from
4 said computer, and for providing said command to said
5 plurality of telephonic devices.

1 5. The apparatus for web initiated telephony as recited
2 in claim 1 wherein said telephonic connection
3 comprises a voice to voice connection.

1 6. The apparatus for web initiated telephony as recited
2 in claim 1 wherein said plurality of telephonic
3 devices comprises:

4 land line telephones;
5 cellular telephones; or
6 personal digital assistants.

1 7. The apparatus for web initiated telephony as recited
2 in claim 1 wherein said plurality of telephonic
3 devices are coupled to said telephone network.

1 8. The apparatus for web initiated telephony as recited
2 in claim 1 wherein said plurality of POP telephony
3 servers are coupled to said plurality of telephonic
4 devices via said telephone network, and to said web
5 server via a data network.

1 9. The apparatus for web initiated telephony as recited
2 in claim 1 wherein said plurality of POP telephony
3 servers comprise:

4 conversion logic for receiving voice data and for
5 converting said voice data to streaming audio for
6 transmission over a data network.

1 10. The apparatus for web initiated telephony as recited
2 in claim 9 wherein said conversion logic further
3 receives streaming audio over said data network and
4 converts said received streaming audio to said voice
5 data.

1 11. The apparatus for web initiated telephony as recited
2 in claim 10 wherein by converting said voice data to
3 said streaming audio, and said streaming audio to said
4 voice data, a two way connection between said
5 plurality of telephonic devices is established over a
6 data network.

1 12. The apparatus for web initiated telephony as recited
2 in claim 1 wherein said command by said web server
3 comprises:

4 a telephone number pertaining to a selected telephonic
5 device to be called; and

6 an IP address of a selected POP telephony server.

1 13. The apparatus for web initiated telephony as recited
 2 in claim 12 wherein said web server provides a command
 3 to each of said plurality of POP telephony servers
 4 that are to establish a telephonic connection.

1 14. The apparatus for web initiated telephony as recited
 2 in claim 1 wherein said user initiates said command by
 3 selecting two or more of said plurality of telephonic
 4 devices to be connected by said web server.

11/11/2003 10:00 AM

1 15. A system for establishing voice communication between
2 first and second telephone devices coupled to first
3 and second telephone networks, the communication
4 initiated by a computing device coupled to a data
5 network, the system comprising:

6 a first telephony server, coupled to the first
7 telephone network and to the data network;

8 a second telephony server, coupled to the second
9 telephone network and to the data network;

10 a web server, coupled to said first and second
11 telephony servers via the data network; and

12 a computing device, coupled to the data network, for
13 making a selection of the first and second
14 telephone devices for communication, and for
15 providing said selection to said web server;

16 wherein, upon receipt of said selection from said
17 computing device, said web server commands said
18 first and second telephony servers to call the
19 first and second telephone devices, respectively,
20 and to establish voice communication between
21 them.

Sub
7
a4

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21

1 16. The system as recited in claim 15 wherein the first
2 and second telephone devices comprise:

3 land line telephones;

4 cellular telephones; or

5 other voice capable telephonic devices coupled to a
6 telephone network.

1 17. The system as recited in claim 15 wherein said
2 computing device comprises:

3 a personal computer;

4 a laptop computer; or

5 a personal digital assistant.

1 18. The system as recited in claim 15 wherein the first
2 and second telephone networks comprise local telephone
3 switches coupled to the first and second telephone
4 devices, respectively.

1 19. The system as recited in claim 15 wherein the data
2 network comprises:

3 the internet;

4 a local area network; or

5 a wide area network.

1 20. The system as recited in claim 15 wherein the computer
2 coupled to the data network comprises a server with an
3 IP address.

1 21. The system as recited in claim 15 wherein said first
2 and second telephony servers comprise:

3 a data server, coupled to the data network, for
4 sending and receiving streaming audio to and from
5 said web server; and

6 voice/streaming audio conversion, coupled to said data
7 server, for converting voice information to
8 streaming audio format for transmission to said
9 data server, and for converting streaming audio
10 received from said data server to voice format.

1 22. The system as recited in claim 15 wherein said web
2 server comprises:

3 a POP database, for storing an IP address for said
4 first and second telephony servers, and for
5 associating telephone numbers with either of said
6 first or second telephony servers.

1 23. The system as recited in claim 22 wherein when said
computer selects said first and second telephone
devices for communication, and provides said selection

4 to said web server, said web server determines which
5 of said first and second telephony servers are
6 associated with said selected first and second
7 telephone devices.

1 24. The system as recited in claim 15 wherein said web
2 server further comprises:

3 streaming audio conversion, for converting streaming
4 audio to and from other computer audio formats.

1 25. The system as recited in claim 24 wherein said other
2 computer audio formats comprise Real Audio format.

1 26. The system as recited in claim 15 wherein said web
2 server comprises text/speech conversion, for
3 converting streaming audio to text format, and for
4 converting text format to streaming audio.

1 27. The system as recited in claim 15 wherein said first
2 and second telephony servers are located in different
3 cities.

1 28. The system as recited in claim 15 wherein said voice
2 communication between the first and second telephone
3 devices is provided via the first and second telephone
4 networks that are local to the first and second
5 telephone devices, and via the data network for long
6 distance connections.

1 29. The system as recited in claim 15 wherein the data
2 network provides long distance voice communication
3 without utilizing a long distance telephone network.

1 30. A long distance communication system for establishing
2 voice communication between two or more telephony
3 devices, each coupled to a telephone network, the
4 communication system utilizing a data network as the
5 long distance transmission medium, the communication
6 system comprising:

7 a plurality of point of presence (POP) servers, each
8 coupled to a local telephone network, and to the
9 data network;

10 a web server, coupled to said plurality of POP servers
11 via the data network, said web server configured
12 to receive information associated with the two or
13 more telephony devices, and for selecting one or
14 more POP servers from said plurality of POP
15 servers to establish voice communication between
16 the two or more telephony devices; and

17 a communication initiation device, coupled to said web
18 server via said data network, for providing
19 selected information associated with the two or
20 more telephony devices to said web server.

1 31. The long distance communication system as recited in
2 claim 30 wherein said POP servers comprise:

3 a data server, for sending and receiving data over the
4 data network; and

5 a telephony server, coupled to said data server and to
6 a telephone network, for receiving voice from the
7 telephone network and for providing the voice to
8 said data server for transmission over the data
9 network.

1 32. The long distance communication system as recited in
2 claim 31 wherein said telephony server further
3 receives data from the data network and provides the
4 data to the telephone network.

1 33. The long distance communication system as recited in
2 claim 32 wherein said POP servers further comprise:

3 voice/data conversion for converting voice to
4 streaming audio format, and for converting
5 streaming audio format to voice.

1 34. The long distance communication system as recited in
2 claim 30 wherein, upon command from said web server,
3 said selected one or more POP servers connect the two

4 or more telephony devices utilizing their local
5 telephone networks.

1 35. The long distance communication system as recited in
2 claim 34 wherein if more than one of said POP servers
3 is selected, the communication system coupling said
4 more than one POP servers is the data network.

1 36. The long distance communication system as recited in
2 claim 30 wherein said communication initiation device
3 comprises:

4 a telephony device coupled to said web server via a
5 data network; or

6 a personal computing device.

1 37. The long distance communication system as recited in
2 claim 30 wherein said communication initiation device
3 selects from a predefined list ones of the two or more
4 telephony devices for communication.

1 38. The long distance communication system as recited in
2 claim 30 wherein said predefined list is stored on
3 said web server.

1 39. The long distance communication system as recited in
2 claim 30 wherein said selected information associated
3 with the two or more telephony devices comprises

4 telephone numbers of the two or more telephony
5 devices.

1 40. A method for initiating voice communication between
2 two telephony devices, utilizing telephone networks
3 for local communication, and a data network for long
4 distance communication, the method comprising:

- 5 a) selecting the two telephony devices to be
6 connected;
7 b) providing information associated with the two
8 telephony devices to a web server;
9 c) associating local telephony servers with the
10 provided information; and
11 d) commanding from the web server that the
12 associated local telephony servers establish
13 communication with their associated telephony
14 device;
15 e) wherein voice communication between the two
16 telephony devices is initiated thru the web
17 server.

1 41. The method for initiating voice communication as
2 recited in claim 40 wherein said selecting is

3 performed via a personal computing device coupled to
4 the data network.

1 42. The method for initiating voice communication as
2 recited in claim 40 wherein the information associated
3 with the two telephony devices comprises telephone
4 numbers.

1 43. The method for initiating voice communication as
2 recited in claim 42 wherein said associating relates
3 the telephone numbers to IP addresses associated with
4 the local telephony servers.

1 44. The method for initiating voice communication as
2 recited in claim 40 further comprising:

3 f) converting voice data to streaming audio, and
4 streaming audio to voice data to allow voice data
5 to be transmitted to and from the two telephony
6 devices over the data network.